



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/885,372	06/20/2001	Gregory G. Minshall	4906.P067	4190
8791	7590	03/25/2005	EXAMINER	
BLAKELY SOKOLOFF TAYLOR & ZAFMAN			TRAN, PHUC H	
12400 WILSHIRE BOULEVARD			ART UNIT	
SEVENTH FLOOR			PAPER NUMBER	
LOS ANGELES, CA 90025-1030			2666	

DATE MAILED: 03/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/885,372

Applicant(s)

MINSHALL, GREGORY G.

Examiner

PHUC H TRAN

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-12, 14-16, 18-27, 29-31, 33 and 34 is/are rejected.
- 7) ☒ Claim(s) 6, 13, 17, 28 and 32 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/20/01</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. This application does not contain a summary of the invention as required by 37 CFR 1.73.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, and 23-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Ganmukhi (U.S. Patent No. 5850399).

- With respect to claims 1, and 23, Ganmukhi teaches a machine-readable medium that provides instructions, which when executed by a set of processors of one or more processors, cause said set of processors to perform operations comprising:

combining a priority scheme with a generalized processor sharing scheme to schedule transmission of a set of data (e.g. Fig. 1 shows classes with different priority scheme and schedule for transmit); and

transmitting the set of data as scheduled (e.g. the method for scheduling transmission of the packet onto a network e.g. Fig. 1).

- With respect to claims 2, and 24, Ganmukhi discloses wherein the generalized processor sharing scheme is a weighted round robin scheme (col. 1, lines 17-27).

Art Unit: 2666

- With respect to claims 3, and 25, Ganmukhi also discloses wherein the generalized processor sharing scheme is a start time fair queuing scheme (col. 1, line 39).

- With respect to claims 4, and 26, Ganmukhi teaches wherein the generalized processor sharing scheme is a self-clocked fair queuing scheme (col. 1, line 38).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5,7-12, 14-16, 18-22, 27, 29-31, and 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsang et al. (U.S. Patent No. 6047000) in view of Yang et al. (U.S. Patent No. 5905730).

- With respect to claims 5, 7, 12, 16, 20, 27 and 31, Tsang teaches a computer implemented method comprising:

determining if at least one of a plurality of groups is eligible to transmit, each of the plurality of groups comprising a set of queues (col. 7, lines 64-67);

selecting an eligible one of highest priority of the plurality of groups having data to transmit upon determining at least one of the plurality of groups is eligible to transmit (col. 1, lines 53-55);

selecting an ineligible one of highest priority of the plurality of groups having data to transmit upon determining at least one of the plurality of groups is not eligible to transmit (col. 3, lines 5-17);

determining a queue having data as most eligible from the set of queues of the selected one of the plurality of groups (e.g. the scheduler in Fig. 2 determines the transmit of queues);

transmitting a set of data from the queue (e.g. the output as in Fig. 2);

updating a first and second value with the cost of the set of data, the first value indicating when the transmitting queue will be eligible to transmit (col. 4, lines 3-15). Tsang fails to teach the cost of the set of data when transmitting queue will be transmitted. Yang teaches the cost effective for transmitting data from queue (col. 1, lines 28-30 and col. 2, line 10-14). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the cost of the set of data for transmitting of Yang into Tsang. The motivation is for less cost of queue data in a memory and fast and fair transmission.

- With respect to claims 8, 14, 18, 29, and 33, Tsang teaches wherein updating the first and second value comprises:

increasing the first and second value with a size of a set of data transmitted from the one of the subset of queues (col. 2, lines 27-40); and

modifying the increased first and second value respectively with a first and second weight respectively corresponding to the one of the subset of queues (col. 5, lines 25-27).

- With respect to claims 9, 15, 19, 30, and 34, Tsang further teaches maintaining a third value indicating unused transmit time (col. 3, lines 5-17).

- With respect to claims 10-11, and 22, Tsang teaches determining the subset of queues to be ineligible to transmit (col. 3, lines 5-17);

determining a second subset of queues to be of highest priority of a second set of queues eligible to transmit (col. 3, lines 5-17);

determining one of the second subset of queues to be most eligible to transmit (col. 7, lines 64-67);

transmitting data from the one of the second subset of queues (e.g. the output as in Fig. 2);

updating a third/four value indicating when the one of the second subset will be eligible to transmit (col. 4, lines 3-15).

- With respect to claim 21, Tsang teaches wherein each of the set of queues is allocated for separate entities (e.g. Fig. 2).

Allowable Subject Matter

6. Claims 6, 13, 17, 28, and 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See form PTO-892.

Art Unit: 2666


Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUC H TRAN whose telephone number is (571) 272-3172. The examiner can normally be reached on M-F (8-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RAO SEEMA can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phuc Tran
Assistant Examiner
Art Unit 2664

P.t
3/16/05



PHUC H TRAN
PATENT EXAMINER